

## NRK-Pom121-EGFP3 Cells | 500669

### General information

<b>Description</b>	This clonal stable cell line was generated by transfection of a circular plasmid (see below) followed by drug resistance selection. Add G418 to culture medium at a final concentration of 0.5 mg/ml.
<b>Organism</b>	Rat
<b>Tissue</b>	Kidney
<b>Synonyms</b>	NRK Pom121-EGFP3, NRK Pom121-3EGFP, NRK-Pom121-3EGFP

### Characteristics

<b>Morphology</b>	Fibroblast-like cells with fusiform shape
<b>Growth properties</b>	Monolayer, adherent

### Identifiers / Biosafety / Citation

<b>Citation</b>	NRK-Pom121-EGFP3 (Cyton catalog number 500669)
<b>Biosafety level</b>	1
<b>Depositor</b>	Dr. J. Ellenberg, EMBL Heidelberg

### Expression / Mutation

<b>Receptors expressed</b>	Epidermal growth factor (EGF), multiplication stimulating activity (MSA)
<b>Protein expression</b>	Pom121-EGFP3: Location/Gene: 1..589 / Pcmv, 653..4250 / Pom121, 4251..4287 / null, 4318..6546 / 3EGFP, 7780..8574 / KanR/NeoR
<b>Products</b>	Epidermal growth factor (EGF), multiplication stimulating activity (MSA), POM121, Transmembrane, Nucleoporin, CMV Promotor, Neomycin, Phosphotransferase

### Handling

<b>Culture Medium</b>	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 1.5 g/L NaHCO <sub>3</sub> , w: 1.0 mM Sodium pyruvate (Cyton article number 820300a)
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<b>Medium supplements</b>	Supplement the medium with 10% FBS, 0.5 mg/ml G418
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<b>Passaging solution</b>	Accutase
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<b>Subculturing</b>	Discard the old medium and wash the cells with PBS. Add a freshly prepared 0.025% trypsin/0.02% EDTA solution heated to 37 degrees Celsius and wait until the cells detach, which usually takes about 5 minutes. Neutralize the trypsin by adding fresh medium, then transfer the cell mixture to a tube and centrifuge. After centrifugation, remove the supernatant, resuspend the cell pellet in fresh culture medium, and transfer the suspension to new flasks. Incorporate G418 into the culture medium to achieve a final concentration of 0.5 mg/ml
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<b>Split ratio</b>	A ratio of 1:3 to 1:4 is recommended
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<b>Seeding density</b>	2 to 4 x 10 <sup>4</sup> cells/cm <sup>2</sup>
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<b>Fluid renewal</b>	2 to 3 times per week
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<b>Freeze medium</b>	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)
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#### Handling of cryopreserved cultures

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

## Quality control / Genetic profile / HLA

#### Sterility

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.

To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.

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#### STR profile

**Rat\_D1Wox31:** 96,100  
**Rat\_D2Wox37:** 156  
**Rat\_D19Wox11:** 220  
**Rat\_D10Wox8:** 266,270  
**Rat\_D4Wox7:** 153,157  
**Rat\_D2Wox27:** 211  
**Rat\_D5Rat33:** 116,138  
**Rat\_D10Wox11:** 156  
**Rat\_D1Wox23:** 210,214  
**Rat\_D12Wox1:** 402,406  
**Rat\_D6Wox2:** 104,124  
**Rat\_D8Wox7:** 185  
**Rat\_D6Cebr1:** 221,233  
**SRY:** x,Y